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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
08/536,345	09/29/1995	STEPHEN TEMPLE	27754/32937	4014

7590 02/07/2002

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EXAMINER

MAHONEY, CHRISTOPHER E

ART UNIT

PAPER NUMBER

2851

DATE MAILED: 02/07/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
08/536,345

Applicant(s)
Temple et al.

Examiner
Christopher E Mahoney

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Oct 18, 2001
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 20-45 and 59-80 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 20-45 and 59-74 is/are allowed.
- 6) ☒ Claim(s) 75-80 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☒ All b) ☐ Some* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☒ Certified copies of the priority documents have been received in Application No. 08/167,894.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- *See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☐ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____
- 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: _____

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DETAILED ACTION

Election/Restriction

1. Applicant's election with traverse of Group I in Paper No. 34 is acknowledged. The traversal is on the ground(s) that an alternative restriction should be made. The examiner has withdrawn the restriction requirement.
2. The applicant has proposed an alternative restriction. The examiner thanks the applicant for the careful consideration and suggestion but respectfully declines to make such a restriction at the present time.

Priority

3. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in parent Application No. 08/167,894, filed on February 15, 1994.

Drawings

4. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the defining surface of a transverse ink supply duct *having an array of parallel conductive tracks* must be shown or the feature(s)

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canceled from the claim(s). No new matter should be entered. The drawings do not show a surface of the duct definitively having a single conductive track. The drawing should show the duct including the array.

Allowable Subject Matter

5. Claims 20-45 and 59-74 are allowed.
6. The indicated allowability of claims 75-80 is withdrawn in view of the rejections under 35 U.S.C 112, first paragraph and the subsequent art rejection.

Specification

7. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The following is a quotation of 37 CFR 1.71(a)-(c):

- (a) The specification must include a written description of the invention or discovery and of the manner and process of making and using the same, and is required to be in such full, clear, concise, and exact terms as to enable any person skilled in the art or science to which the invention or discovery appertains, or with which it is most nearly connected, to make and use the same.
- (b) The specification must set forth the precise invention for which a patent is solicited, in such manner as to distinguish it from other inventions and from what is old. It must describe completely a specific embodiment of the process, machine, manufacture, composition of matter or improvement invented, and must explain the mode of operation or principle whenever applicable. The best mode contemplated by the inventor of carrying out his invention must be set forth.
- (c) In the case of an improvement, the specification must particularly point out the part or parts of the process, machine, manufacture, or composition of matter to which the improvement relates, and the description should be confined to the specific improvement and to such parts as necessarily cooperate with it or as may be necessary to a complete understanding or description of it.

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The specification is objected to under 37 CFR 1.71 because the specification fails to provide an adequate written description of the invention. The specification is also objected to under 37 CFR 1.71 as failing to present a best mode of carrying out the invention. The arrangement wherein a transverse ink supply duct has an array of conductors corresponding to ink channels is not adequately disclosed nor was it disclosed in the originally filed application. The applicant refers to figure 1 to show support that trace 16 intersects with duct 26. However in figure 1 it is inconclusive if 16 intersects (and defines part of) 26 or not. For example, the trace may circumvent 26 and turn in (toward the paper in figure 1) to intersect with the ink channel. No other figure discloses that 16 intersects or defines 26 nor does the disclosure discuss this. The disclosure merely states that the manifold 21 is attached at the end of the channels next to the drive chip.

Claim Rejections - 35 USC § 112

8. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

9. Claims 75-80 are rejected under 35 U.S.C. 112, first paragraph, because the best mode contemplated by the inventor has not been disclosed. Evidence of concealment of the best mode is based upon the fact that the specification as filed does not discuss a transverse ink supply duct

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which has a defining surface comprised of an array of parallel conductive tracks corresponding with channel spacing. While the examiner recognizes that the top/cover sheet 14 contains track(s) 16, the specification does not disclose the embodiment/mode as disclosed in the claim language of claim 75.

10. Claims 75-80 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

11. For further detail on the rejections under 35 U.S.C. 112, first paragraph, the applicant is referred to review the objection to the specification.

Claim Rejections - 35 USC § 102

12. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

13. Claims 75-77 and 79-80 are rejected under 35 U.S.C. 102(b) as being anticipated by Temple (EP 0364136 A2). Temple teaches multi channel array droplet deposition apparatus comprising a base sheet 14 made of a piezoelectric material and having channels 12 formed therein. Electrodes 34 are provided on surfaces of the walls. Nozzles 40 communicate with the

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channels. A transverse duct 46 supplies ink to the channels. A surface is defined by an array of conductive material 42 which connects with the electrodes. The applicant is directed to review figures 2 and 3 as well as column 6, lines 40-44 and column 7, lines 28-52.

Claim Rejections - 35 USC § 103

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

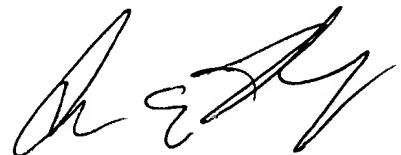
15. Claim 78 is rejected under 35 U.S.C. 103(a) as being unpatentable over Temple (EP 0364136 A2). Temple discloses the claimed invention except for specifically reciting borosilicate glass. It would have been obvious at the time the invention was made for one of ordinary skill in the art at the time the invention was made to utilize borosilicate glass, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

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Conclusion

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Christopher Mahoney at telephone number (703) 305-3475. The examiner can normally be reached 8:00 AM to 5:30 PM Monday through Thursday. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Russ Adams, can be reached at (703) 308-2847. The fax number for this Group is (703) 305-34[31,32]. Any inquiry of a general nature or related to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0956.

CM
February 6, 2002

A handwritten signature in black ink, appearing to read 'C. Mahoney', with a stylized flourish at the end.

Christopher E. Mahoney
Primary Examiner AU2851